

FIG. 1

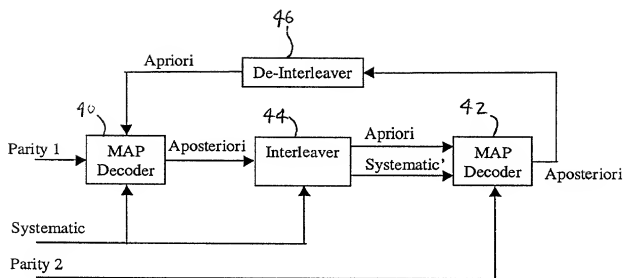


FIG. 2

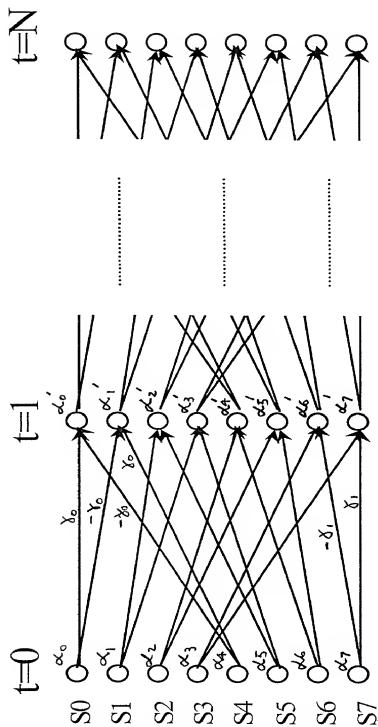


FIG. 3

$$\begin{aligned} \text{Ln} [\alpha_k(s)] = \text{MAX} \{ & \text{Ln}[\alpha_{k-1}(s')] + \text{Ln}[\gamma_k(s',s)] , \\ & \text{Ln}[\alpha_{k-1}(s'')] - \text{Ln}[\gamma_k(s',s)] \} \\ & + \text{Ln}[1 + e^{-\text{abs}(\text{Ln}[\alpha_{k-1}(s')] - \text{Ln}[\alpha_{k-1}(s'')])}] \end{aligned}$$

FIG. 4

$$\begin{aligned} \text{Ln}[\beta_{k-1}(s)] = \text{MAX} \{ & \text{Ln}[\beta_k(s')] + \text{Ln}[\gamma_k(s', s)] , \\ & \text{Ln}[\beta_k(s'')] - \text{Ln}[\gamma_k(s', s)] \} \\ & + \text{Ln}[1 + e^{-\text{abs}(\text{Ln}[\beta_k(s')] - \text{Ln}[\beta_k(s'')])}] \end{aligned}$$

FIG.5

$$\begin{aligned}
\text{LLR}(k) = & \text{Max}_{s^+} \{ \ln[\alpha(s_{k-1})] + \ln[\gamma(s',s)] + \ln[\beta(s_k)] \} \\
& - \text{Max}_{s^-} \{ \ln[\alpha(s_{k-1})] + \ln[\gamma(s',s)] + \ln[\beta(s_k)] \} \\
& + \text{Jacobian Correction Factor}
\end{aligned}$$

FIG. 6

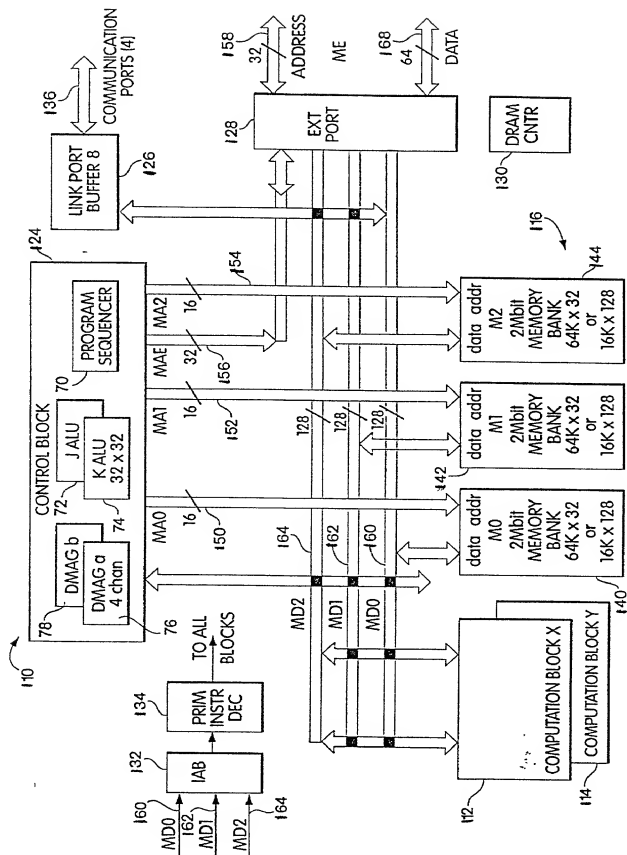


FIG. 7

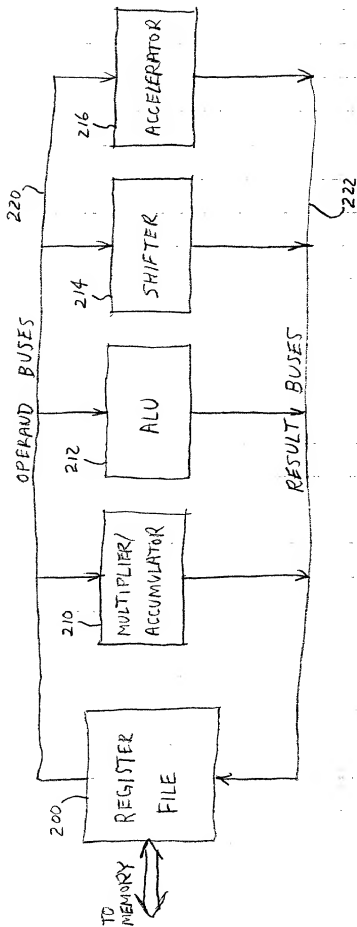
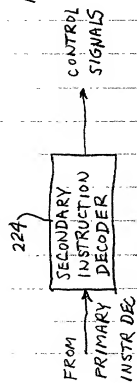


FIG. 8



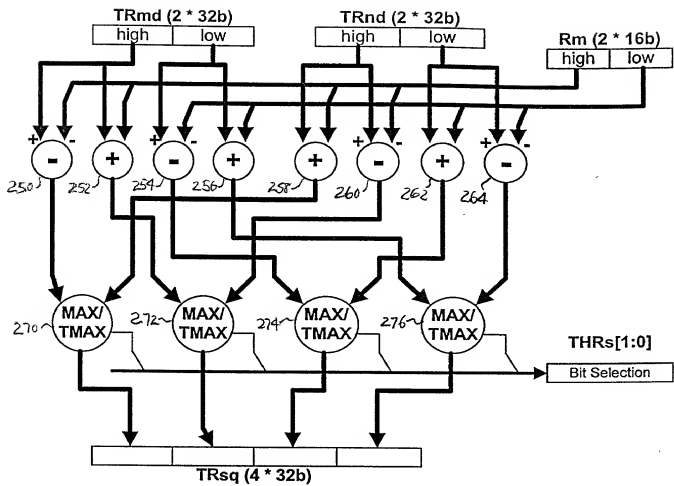


FIG. 9

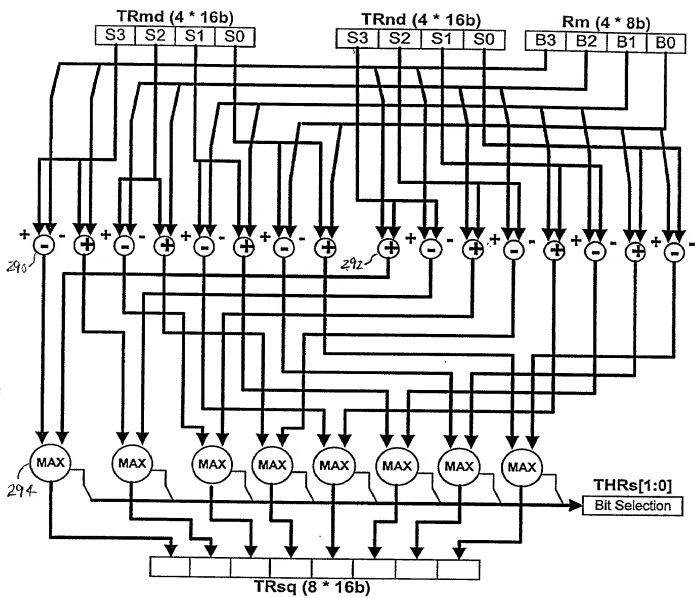


FIG. 10

Loop:

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R7:4 =TR7:4, TR11:8 = ACS(TR5:4, TR1:0, sR24); q[K22+=4]=xR3:0; q[J22-=4]=yR3:0;;
R11:8 =TR11:8, TR15:12 = ACS(TR7:6, TR3:2, sR25); q[K22+=4]=xR7:4; q[J22-=4]=yR7:4;;

R15:12 =TR15:12,TR3:0 = ACS(TR13:12,TR9:8, sR26); q[K22+=4]=xR11:8; q[J22-=4]=yR11:8;;
R3:0 =TR3:0, TR7:4 = ACS(TR15:14,TR11:10,sR27);q[K22+=4]=xR15:12;q[J22-=4]=yR15:12;;

R7:4 =TR7:4, TR11:8 = ACS(TR5:4, TR1:0, sR28); q[K22+=4]=xR3:0; q[J22-=4]=yR3:0;;
R11:8 =TR11:8, TR15:12 = ACS(TR7:6, TR3:2, sR29); q[K22+=4]=xR7:4; q[J22-=4]=yR7:4;;

R15:12 =TR15:12,TR3:0 = ACS(TR13:12,TR9:8, sR30); q[K22+=4]=xR11:8; q[J22-=4]=yR11:8;;
R3:0 =TR3:0, TR7:4 = ACS(TR15:14,TR11:10,sR31);q[K22+=4]=xR15:12;q[J22-=4]=yR15:12;;
If 'nLCoF, jump loop;;

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F1G.11

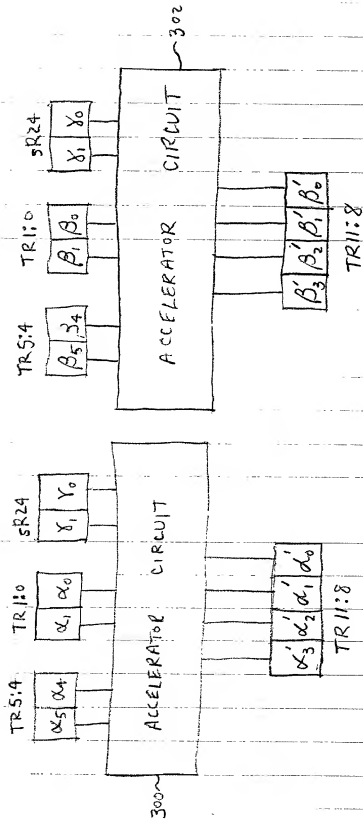


FIG. 12

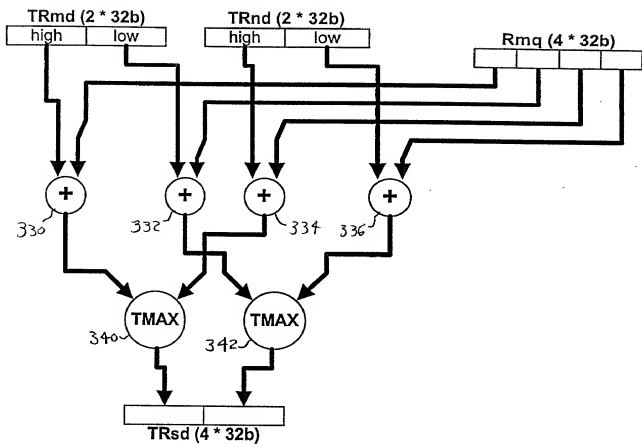


FIG. 14

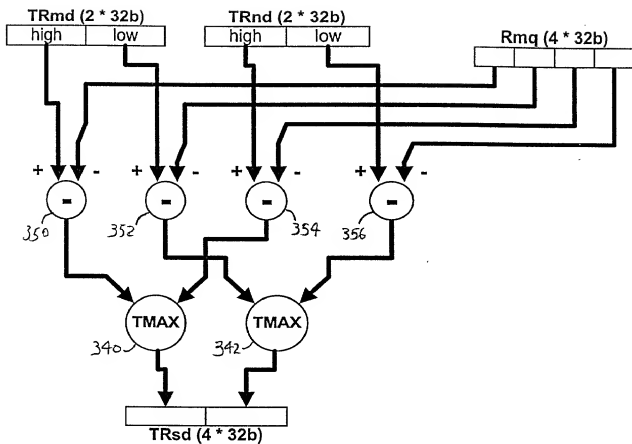
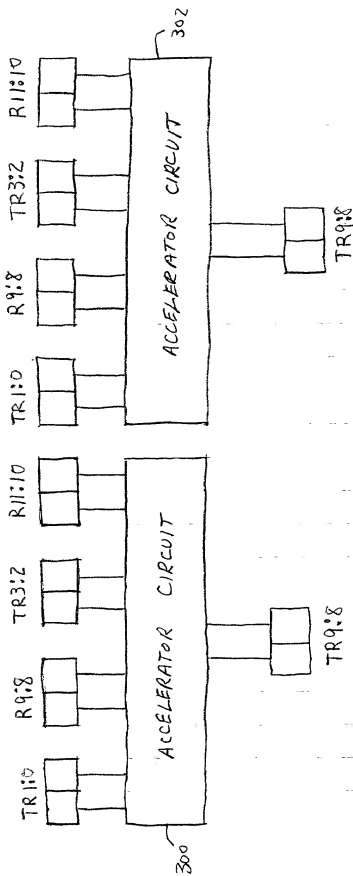


FIG. 15



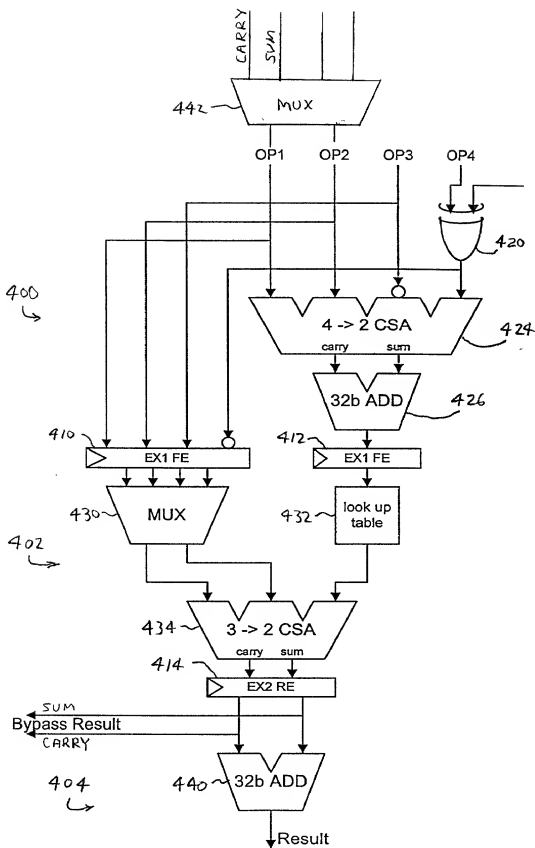


FIG. 18